

## ABSTRACT

The present invention is characterized in that a base material is coated with a ceramic thin film comprising a composite phase composed of a first phase mainly formed of a silicon ceramic component and a second phase mainly formed of a ceramic component other than the silicon ceramic component of the first phase, in which the amount of fine crystal particles of at least one ceramic component that constitutes the second phase slopingly increases toward a surface layer. According to the present invention, there are provided a ceramic thin film coating material having a slope constitution, which not only has an excellent function such as a photocatalyst function, an electrical function, a thermal catalyst function or a catalyst-supporting function or environment resistance such as oxidation resistance, alkaline resistance or wear resistance but also has excellent dynamic properties, and a process for the production thereof.